



# **Round Three Public Workshops Draft Plan Recommendations**

**June, 2004**

## **Greensboro Urban Area 2030 Transportation Plan**

The Greensboro Urban Area Metropolitan Planning Organization (MPO) has been working on the update to the Long Range Transportation Plan (LRTP) since Fall, 2003. Two previous rounds of public meetings have been conducted. The current round of workshops are intended to present draft plan findings for public review and comment.

The MPO's planning area covers much of Guilford County, including the City of Greensboro and the Towns of Oak Ridge, Pleasant Garden, Sedalia, Stokesdale, and Summerfield. Current work reflects an extensive study of future transportation needs and high levels of public participation in earlier workshops.

The workshops feature a presentation and discussion of key elements of the draft plan. These include proposed future transportation projects and investment strategies, an updated Thoroughfare Plan, and a draft Collector Street Plan. Preliminary public policy recommendations and future study needs are also presented. Attached is summary information about various aspects of the plan including:

- Draft Policy Recommendations
- LRTP Highway Projects by Horizon Year
- Public Transportation Investments
- Bicycle & Pedestrian Investments

*For additional information please see the project website:*

[www.greensboro-nc.gov/LRTP](http://www.greensboro-nc.gov/LRTP)

## **Draft Policy Recommendations:**

### ROADWAYS

- Use context sensitive design to reduce community impacts
- Bicycle and pedestrian facilities should be provided with roadway projects where appropriate.
- Local street connectivity is important: more study & community dialog are needed

### PUBLIC TRANSPORTATION

- Public transportation services should be attractive, convenient and efficient
- Public transportation facilities should be coordinated with roadway improvements
- Use pedestrian & bicycle projects to support public transportation service
- Effective regional public transportation service will depend on a strong local system
- Public transportation should be explicit consideration in land use planning and development

### NON-MOTORIZED

- Urban
  - Aggressive program of retrofit sidewalk installation on major streets
  - Improved pedestrian crossings at busy intersections
  - Enhanced trail system
  - Detailed bicycle study and plan needed
- Rural:
  - Sidewalks and or trails should be installed where appropriate
  - Key pedestrian crossings should be evaluated for safety enhancements
  - Detailed bicycle study and plan needed to assess needs and recommend improvements.

### THOROUGHFARES & COLLECTOR PLANS

- Roadway design standards should be reassessed and updated in the Unified Development Ordinances of area local governments.
- Continue development of the Collector Street Plan after LRTP adoption.

### FINANCIAL PLANNING

- Continue to assess transportation funding needs
- Identify shortfalls
- Seek alternatives and innovative ways to funding transportation improvements

### COORDINATION OF LOCAL PLANS

- MPO should continue to work closely with and consider local land use and comprehensive plans
- Coordinate land use planning and development related issues

## L RTP Highway Projects by Horizon Year

**2004, 2014, 2020, 2030**

<b>Roadway Projects, 2004</b>					
<b>ID</b>	<b>Facility</b>	<b>Description / Extents</b>	<b>Length (miles)</b>	<b>Existing # Lanes</b>	<b>Horizon Year # Lanes</b>
A1	Wendover Avenue	Big Tree Way to Stanley Rd.	0.4	4 lane	6 lane
A2	US 29	16th St. to Rockingham county line (pavement rehab)	10.9	4 lane divided	4 lane divided
A3	Southern Urban Loop (I-85)	I-85 to Clapp Farm Rd.	14.7	N/A	6 lane freeway
A4	I-40 / US 421	Bus. 40 to W of Freeman Mill Rd.	10.9	4 lane freeway	8 lane freeway
A5	Norwalk Street Extension	Lee Street to Boston Road (rail crossing closing project)	0.3	N/A	3 lane
A6	Spring Garden Street Median	Between Freeman Mill Rd. and Jackson St.	0.3	4 and 2 lane	Divided
	Guilford College Road	Widen from Hornaday Rd. to Ruffin Rd. (refer to 2014 for more; remainder of the project is located in High Point)	1.1	2 lane	4-5 lane

<b>Roadway Projects, 2005-2014</b>					
<b>ID</b>	<b>Facility</b>	<b>Description / Extents</b>	<b>Length (miles)</b>	<b>Existing # Lanes</b>	<b>Horizon Year # Lanes</b>
B1	New Garden Road	Existing widening to Brassfield Rd.	1.0	2 lane	4-5 lane
B2	Friendly Avenue	Westridge Rd. to Holden Rd., add medians & LT lanes (refer to 2004 for the remainder)	1.4	4 lane	4-5 lane
B3	Creek Ridge Road	Randleman Rd. to US 220 (refer to 2004 for the remainder)	1.2	2 lane	3 lane
B4	Franklin Boulevard / Florida Street Connector	McConnell Rd. to Lee St.	0.6	2 lane	3-4 w/ median
B5	Elm-Eugene Street	Vandalia Rd. to Southern Urban Loop (I-85 Bypass) (refer to 2004 for the remainder)	0.8	2 lane	5 lane
B6	US 220	Horsepen Creek Rd. to US 220 - NC 68 Connector	6.3	2 lane	4-5 lane
B7	Mackay Road	High Point Rd. to Adams Farm Pkwy.	0.5	2 lane	5 lane
B8	Battleground Avenue	Cotswold Ave. to Westridge Rd.	1.3	5 lane	6-7 lane
B9	Stanley Road	Koger Blvd. to Hilltop Rd.	1.1	2 lane	5 lane
B10	Church Street	Cone Blvd. to Northwood St.	1.5	3 lane	5 lane
B11	Horsepen Creek - Fleming Connector	Horse Pen Creek Rd. to Fleming Rd. (includes extending existing x-sections) (refer to 2004 for the remainder)	0.7	N/A	3 lane
B12	Vandalia Road	Elm-Eugene St. to Pleasant Garden Rd.	1.0	2 lane	5 lane
B13	Summit Avenue	McKnight Mill Rd. to Brightwood School Rd.	2.3	2 lane	4-5 lane
B14	Summit Avenue	Bryan Park to Eckerson Rd.	0.8	2 lane	4-5 lane
B15	West Market St.	NC 68 to Bunker Hill Rd. in Colfax	3.6	2 lane	4-5 lane
B16	Gallimore Dairy Road	NC 68 to I-40 (refer to 2004 for more; remainder of the project is located out of area)	1.0	2 lane	5 lane
B17	Western Urban Loop	I-85 to Lawndale Dr. (refer to 2004 for the remainder)	15.0	N/A	6 lane freeway
B18	Chimney Rock Road Extension	Existing facility to Old Oak Ridge Rd.	1.3	N/A	2 lane

<b>Roadway Projects, 2005-2014</b>					
<b>ID</b>	<b>Facility</b>	<b>Description / Extents</b>	<b>Length (miles)</b>	<b>Existing # Lanes</b>	<b>Horizon Year # Lanes</b>
B19	NC 68 / US 220 Connector	Pleasant Ridge Rd. to US 220 + widening to Rockingham Co. line (refer to 2004 for more; remainder of the project is located in Rockingham Co.)	9.8	N/A	4 lane freeway
B20	Merritt Drive	I-40 to High Point Rd.	1.0	3 lane	5 lane
B21	Guilford College Road	Widening (from Ruffin Rd to new alignment)	2.3	2 lane	4-5 lane
		New alignment (from widening to High Point Rd.) (refer to 2004 for more; remainder of the project is located in High Point)	1.5	N/A	4 lane divided
B22	Hilltop Road	Guilford College Rd. to Adams Farm Pkwy. (refer to 2004 for the remainder)	0.6	2 lane	4-5 lane
B23	High Point Road	Hilltop Rd. to Proposed US 311 Bypass (portion in High Point) (remainder of the project lies in High Point)	3.8	3 lane	4-5 lane
B24	Groometown Road	Wiley Davis Rd. to Wayne Rd. (refer to 2004 for the remainder)	1.2	2 lane	4-5 lane
B25	Bridford Parkway Extension	Wendover Ave. at Hornaday Rd. to Burnt Poplar Rd. at Swing Rd.	1.1	N/A	5 lane
B26	Hornaday Road / Chimney Rock Road Connector	Hornaday Rd. to Chimney Rock Rd. (refer to 2004 for the remainder)	1.0	N/A	3 lane
B27	Hornaday Road / Chimney Rock Road Connector	Bridge over Outer Loop	N/A	N/A	N/A
B28	Reedy Fork Service Road	Turner-Smith Rd. Ext. to Reedy Fork Pkwy.	1.4	N/A	5
B29	Reedy Fork Parkway	Turner-Smith Rd Ext to Eckerson Rd.	2.2	N/A	3
B30	Turner Smith Road Extension	Connect Brown Summit Rd. to Turner Smith Rd.	2.0	N/A	3 lane
B31	Lake Jeanette Road	Lawndale Ave. to N Elm St. / Bass Chapel Rd.	2.0	2-3 lane	3-5 lane
B32	East Market Street	Streetscape and Traffic Management (refer to 2004 for the remainder)	1.5	6 lane divided	4 lane divided
B33	Lake Brandt / Cotswold Connector	Lake Brandt Rd. to Cotswold Rd.	0.3	3 lane	3 lane
B34	Old Battleground Avenue	Street closure	0.1	N/A	N/A
B35	US 421	Williams Dairy / Neely Rd realignment & interchange	1.2	2 lane	3-5 lane
B36	US 29	Eckerson Rd. / US 29 Interchange + 1 mile of freeway upgrade (Assumes U-2524 includes widening of remaining US 29 south to Urban Loop)	1.0	4 lane freeway	6 lane freeway
B37	Greensboro Signal / ITS System		N/A	N/A	N/A
B38	Church Street	Streetscape, Lindsay St. to Friendly Ave.	0.3	N/A	N/A
B39	East Cone Boulevard Extension	Nealtown Rd. to Hines Chapel Rd.	2.0	N/A	4 lane divided
B40	Bryan Boulevard	Inman Rd. to NC 68 (relocate roadway)	1.9	4 lane divided	4 lane divided
B41	Holts Chapel Road Upgrade	Alignment & X-section improvements, E Market St to Ward Rd	1.6	2 lane	2-3 lane
B42	Pegg / Thatcher / Brigham Road Extension	Gallimore Dairy Rd. to Pleasant Ridge Rd. (new & existing, part in High Point)	4.0	N/A	4 lane divided
B43	Bryan Boulevard Extension	NC 68 to Pleasant Ridge Rd.	0.8	N/A	3 lane
B44	Sandy Ridge Road	I-40 to Market St.	1.0	2 lane	4 lane divided
B45	Alamance Church Road	US 421 to SE of Southeast School Rd.	4.7	2 lane	5 lane
B46	Gallimore Dairy Road	I-40 to Market St.	0.6	2 lane	5 lane
B47	Hilltop Road	Widen from Adams Farm Pkwy to Stanley Rd.	1.3	2 lane	5 lane

<b>Roadway Projects, 2015-2020</b>					
<b>ID</b>	<b>Facility</b>	<b>Description / Extents</b>	<b>Length (miles)</b>	<b>Existing # Lanes</b>	<b>Horizon Year # Lanes</b>
C1	US 158	Forsyth Co. Line to US-220 (in conjunction w/ Bypass) (refer to 2014 for more; remainder of the project lies in Forsyth and Rockingham Cos.)	4.6	2 lane	4-5 lane
C2	US 70	Rock Creek Dairy Rd. to Alamance County Line (.3 to MAB) (remainder of the project lies in Alamance Co.)	0.3	2 lane	5 lane
C3	US 70	Mt Hope Church Rd. to Rock Creek Dairy Rd.	5.2	2 lane	5 lane
C4	Fleming Road / Lewiston Road	Fleming Rd. to Lewiston Rd. connection and interchange at Urban Loop	0.6	N/A	4-5 lane
C5	Horsepen Creek Road	New Garden Rd. to Battleground Ave.	3.4	2 lane	4-5 lane
C6	Summit Avenue	Brightwood School Rd. to Bryan Park	2.6	2 lane	3-5 lane
C7	Eastern Urban Loop	Lawndale Dr. to US 70 (refer to 2014 for the remainder of the project)	13.0	N/A	6 lane freeway
C8	E Cone Blvd / Urban Loop Interchange	Interchange with East Cone Blvd. and Urban Loop	N/A	N/A	N/A
C9	I-40 / NC 68 / I-73 Connector	Old Oakridge Rd. to I-40 & widen existing Bryan Blvd. to Urban Loop	7.6	N/A	4-6 lane freeway
C10	NC 150 Realignment	Brookbank Rd. to Summerfield Rd.	1.9	N/A	2 lane
C11	Hicone Road Extension	Lee's Chapel Rd. to Summit Ave.	0.8	N/A	3 lane
C12	Carmon / McLeansville Road Connector	Know Rd. to McLeansville Rd.	1.1	N/A	2 lane
C13	Gallimore Dairy Road / Friendly Avenue	Realign for continuity	0.2	5 lane	5 lane
C14	Ritters Lake Road Realignment	Connect with Wolfetrail at Randleman Rd.	0.4	2 lane	3 lane
C15	Sandy Ridge Road Extension	Market St. to Airport Connector and interchange at Market St.	1.0	N/A	4 lane divided
C16	US 158 Bypass	Anthony Rd. to Angel-Pardue Rd.	2.9	N/A	4 lane divided
C17	Lewiston / Pleasant Ridge Roads	Urban Loop to Realigned NC 150	5.0	2 lane	5 lane
C18	Vandalia Road Extension	Pleasant Garden Rd. to Alamance Church Rd. & US 421 interchange	2.7	N/A	3 lane
C19	South Holden Road	Old Randleman Rd. to existing widening	1.9	2 lane	4-5 lane
C20	NC 150	NC 68 to Lake Brandt Rd. (excludes new location)	7.5	2 lane	3 lane
C21	Pleasant Ridge Road	Market St. to Lewiston Rd.	8.0	2 lane	3 lane

Roadway Projects, 2021-2030					
ID	Facility	Description / Extents	Length (miles)	Existing # Lanes	Horizon Year # Lanes
D1	US 158	US 220 - Rockingham Co Line (remainder of the project lies in Rockingham Co.)	1.5	2 lane	4-5 lane
D2	US 29	New SPUI (@ Brown Summit / Turner Smith Connector	N/A	N/A	N/A
D3	Penry / Ward / Youngs Mill Connector	McConnell Rd. to Huffine Mill Rd. (realign & improve existing)	3.1	2 lane	3 lane
D4	Franklin Road	Railroad grade separation	N/A	N/A	N/A
D5	Ward Road	Railroad grade separation	N/A	N/A	N/A
D6	Mackay Road	Railroad grade separation	N/A	N/A	N/A
D7	Hilltop Road	Railroad grade separation	N/A	N/A	N/A
D8	Aycock Street	Railroad underpass replacement (in conjunction with PART)	N/A	N/A	N/A
D9	East Market Street	Railroad underpass replacement (in conjunction with PART)	N/A	N/A	N/A
D10	Rankin Mill / Flemingfield Connector	South of Keeley Rd. Huffine Mill Rd.	0.7	2 lane	3 lane
D11	High Rock Road Extension	US 70 to Frieden Church Rd. (connect & improve existing facilities)	5.5	2 lane	2 lane
D12	Wades Store Road Extension	Mt. Hope Church Rd. to Alamance Church Rd.	1.7	2 lane	2 lane
D13	NC 62 / Liberty Road	New Garden Rd. to Bulb Rd.	1.1	2 lane	2 lane
D14	Burnetts Chapel / Steeple Chase / Hagen Stone Park Connector	Burnetts Chapel Rd. to Company Mill Rd., new & existing + US 421 interchange	5.2	2 lane	2 lane
D15	Airport Connector	Sandy Ridge Rd. Ext. (at I-73 Connector) to Forsyth Co. (continues to Winston-Salem Urban Loop / I-74)	3.7	N/A	4 lane freeway
D16	Strawberry Road Extension	NC 150 to Lake Brandt Rd.	1.4	2 lane	2 lane
D17	Youngs Mill / Southeast School Connector	Millpoint Rd. to Southeast School Rd.	1.2	N/A	2 lane
D18	US 29	Widen & upgrade to interstate, N of Reedy Creek to Rockingham Co. line	5.5	4 lane freeway	6 lane freeway
D19	South Dudley Street	Railroad grade separation	N/A	N/A	N/A
D20	South English Street	Railroad grade separation	N/A	N/A	N/A
D21	Colony Road	Railroad grade separation	N/A	N/A	N/A
D22	Tate Street	Railroad grade separation	N/A	N/A	N/A
D23	Benbow Road	Railroad grade separation	N/A	N/A	N/A
D24	Nealtown Road / McKnight Mill Road Connector and Extension	Huffine Mill Rd. to Eckerson Rd. (connect & improve existing facilities)	4.0	2 lane	2-3 lane
D25	Knox Road Extension	Carmon to Frieden Church Rd., w/ RR grade separation	0.3	N/A	2 lane
D26	Creekview / Butler Road Connector	McCleansville Rd. to Huffine Mill Rd.	0.3	N/A	2 lane
D27	Williams Dairy / Millpoint Road Connector	Millpoint Rd. to Williams Dairy Rd.	0.6	N/A	2 lane
D28	Bishops Road - Ritters Lake Road Connector	S. Holden Rd. (Drummond Rd.) to Wolfetrail Rd. (Old Randleman Rd.)	0.8	2 lane	3 lane
D29	Florida Street Extension	Franklin Blvd. Ext. to McLeansville Rd. (new & improve existing)	4.0	N/A	4 lane divided
D30	Hicone Road Widening	US 29 to Hines Chapel Rd.	3.3	2 lane	5 lane
D31	Summit Ave Extension (info only, not in LRTP)	Greenbrook Rd to Benaja Rd	1.4	N/A	2 lane

*Note: Total highway investments are expected to exceed \$2.9 billion through 2030*

**Roadway Costs and Revenues\***

(all costs in 000's)

Period	Capital Costs	Roadway Capital Revenues		Capital Balance	Maintenance Costs	Maintenance Revenues		Maintenance Balance
		Highway TIP	Bonds			State	Local	
2004	104,210	96,220	7,990	0	26,330	20,830	5,500	0
2005-2014	805,130	752,460	55,190	2,520	333,010	275,100	57,910	0
2015-2020	366,710	375,690	0	8,980	279,740	242,330	37,410	0
2021-2030	389,150	484,880	0	95,730	667,640	600,520	67,120	0
Totals	1,665,200	1,709,240	63,180	107,220	1,306,720	1,138,780	167,940	0

**Bicycle and Pedestrian Element**

The recommended investments for the bicycle & pedestrian element area based on 1) the current construction programs of the City of Greensboro, Guilford County, and the NCDOT; and 2) estimates of future funding levels based largely on these programs.

**Sidewalk and Trail Construction Estimates by Horizon Year**

Pedestrian & Bicycle Costs and Revenues (all costs in 000's)			
Period	Costs	Revenues	Difference
2004	4,802	4,802	0
2005-2014	40,829	40,829	0
2015-2020	24,934	24,934	0
2021-2030	40,231	40,231	0
Totals	110,796	110,796	0

\* Maintenance expenses accounted for under roadways.



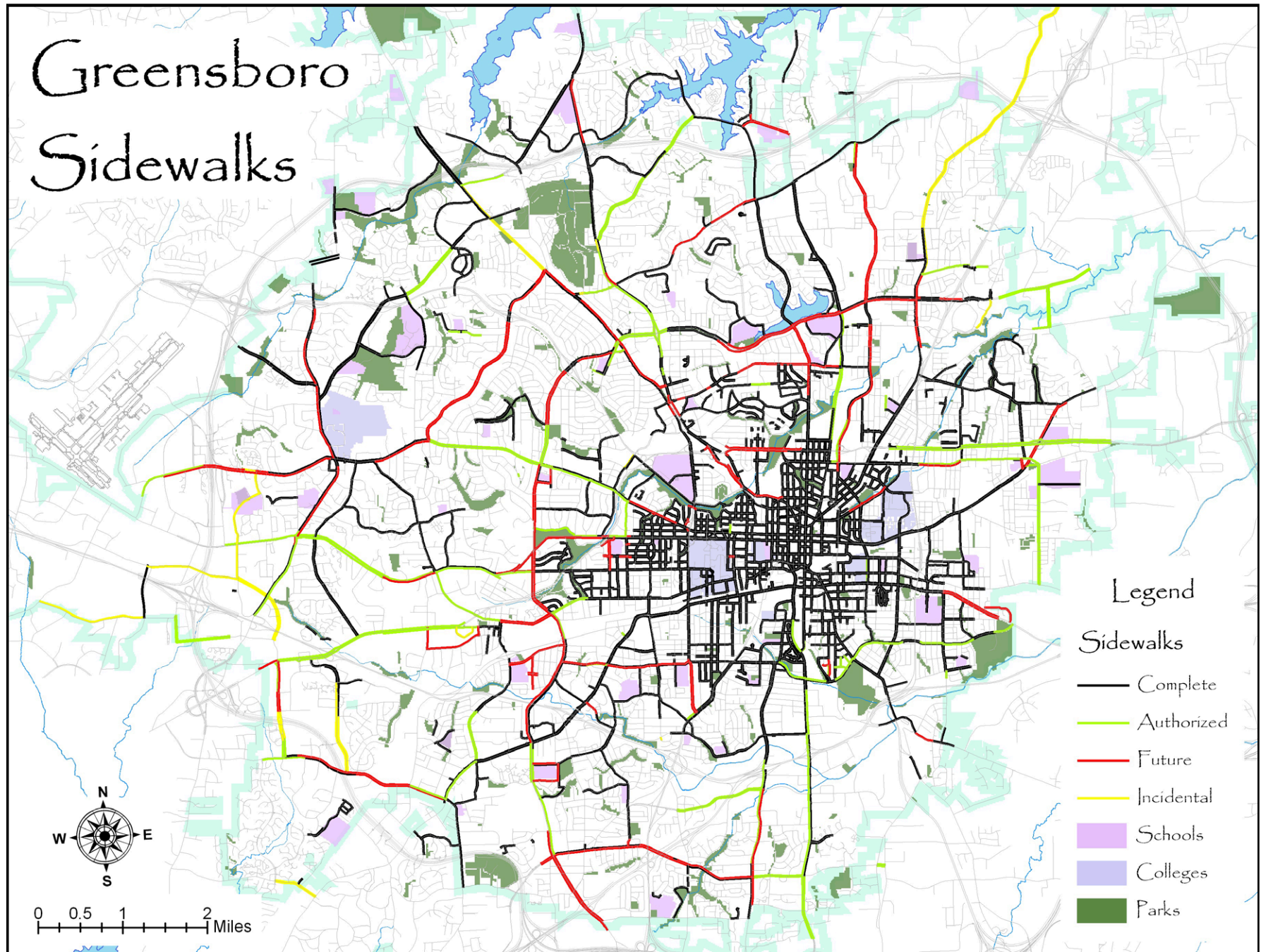
A key finding of the 2030 LRTP update has been that widespread and deep support exists for improvements to the pedestrian and bicycle facility infrastructure throughout the MPO area. It is anticipated that more extensive improvements will be needed by 2030, but additional, more detailed work will be needed to develop a long term plan of action for this. At present, the plan assumes that by 2030, roughly 107 miles of new trail and 400 miles of sidewalk are assumed to be opened as a result of the investments noted in the LRTP.

### **Bicycle & Pedestrian Investments in the LRTP**

The LRTP assumes the continuation of an aggressive program by the City of Greensboro to retrofit existing roadways with sidewalks. This program is targeted to high need locations such as major roadways with bus routes, apartments near commercial uses, etc. It also assumes a continuation of the City's sidewalk petition program on residential streets at current levels. **The City currently has 35 miles of independent sidewalk projects at various stages design, right-of-way and construction. The LRTP also assumes sidewalks are included in all City of Greensboro Roadway projects, as well as in NCDOT roadway improvement projects in urban and most urbanizing areas. An additional 31 miles of roadway project sidewalks are currently in various stages of design, right-of way, and construction. The attached map shows all currently authorized sidewalk projects in the area, as well as some of the highest priority areas for sidewalk project development in the future.**

The LRTP also assumes continued implementation of the City and County Trail System. These include the extension of the Battleground Rail Trail into downtown Greensboro, and completion of the Piedmont Greenway from Winston-Salem to Greensboro through northwest Guilford County.

Bicycle accommodations (bike lanes or wide outside shoulders) are currently planned for some of the LRTP roadway projects. However, more detailed work will be needed to develop a long term strategy for meeting area on-street bicycle facility needs. The MPO plans to conduct a Bicycle Accommodations Study and Plan in 2004-2005 to develop a long term implementation plan.



## Public Transportation Element

The recommended investments in the public transportation element are based on 1) the Greensboro Transit Authority's recently adopted Mobility Greensboro Public Transportation Plan; and 2) the regional public transportation services and plans of the Piedmont Authority for Regional Transportation (PART). Total public transportation investments are expected to exceed \$677+ million through 2030. Operating & maintenance costs (O&M) are expected to represent a majority of the costs.

### Total Costs

Transit Costs and Revenues (all costs in 000's)					
Period	Costs			Revenue	Difference
	O&M	Capital	Total	Total	
2004	9,873	6,649	16,522	16,530	8
2005-2014	124,230	88,266	212,496	212,520	24
2015-2020	143,214	36,209	179,423	179,560	137
2021-2030	255,196	13,665	268,861	280,970	12,109
Totals	532,513	144,789	677,302	689,580	12,278

### GTA

The Mobility Greensboro plan seeks to double GTA ridership within 10 years. The plan proposes to meet this goal through enhanced services (shorter waits, new routes), a focus on passenger amenities (bus shelters, real-time bus location information services), and close coordination with area colleges and universities. Mobility Greensboro also recommends additional revenue sources need to implement the plan. **The plan proposes to increase the GTA fixed route fleet size by 39 buses, from 36 in 2004 to 75 in 2014.**

The LRTP finds that GTA's service expansion plans appear reasonable, and can reasonably be expected to be funded in the timeframe noted in the plan. Actual timing of GTAs service expansion plans will depend on the availability of additional revenue sources. Revenue availability will depend in part on the results of implementation discussions that will unfold over the short to mid-term. Assuming the Mobility Greensboro Improvements are made by 2014, additional service enhancements could be expected by 2020 and 2030. However, these have not been identified in the 2030 LRTP update pending further technical assessments about what form these enhancements might take.

See the map on the next page for an illustration of new bus routes proposed for implementation by GTA by 2014. More information about Mobility Greensboro can be found at [http://www.ci.greensboro.nc.us/gdot/public\\_trans/](http://www.ci.greensboro.nc.us/gdot/public_trans/)

## PART

### *Background*

The Piedmont Authority for Regional Transportation currently operates an express bus service between Greensboro, Winston-Salem, and High Point. Three routes are in operation, connecting each City to a hub in the Airport Area near NC 68 and I-40. Current service includes feeder vans (a majority of which are operated & subsidized by GTA), that circulate between the hub and airport area destinations (primarily employment sites).

PART proposes to operate a regional rapid transit service in the future. An alternatives analysis study is currently underway. This study is assessing whether regional rail or bus rapid transit service would be more appropriate. The current locally preferred alternative is regional rail.

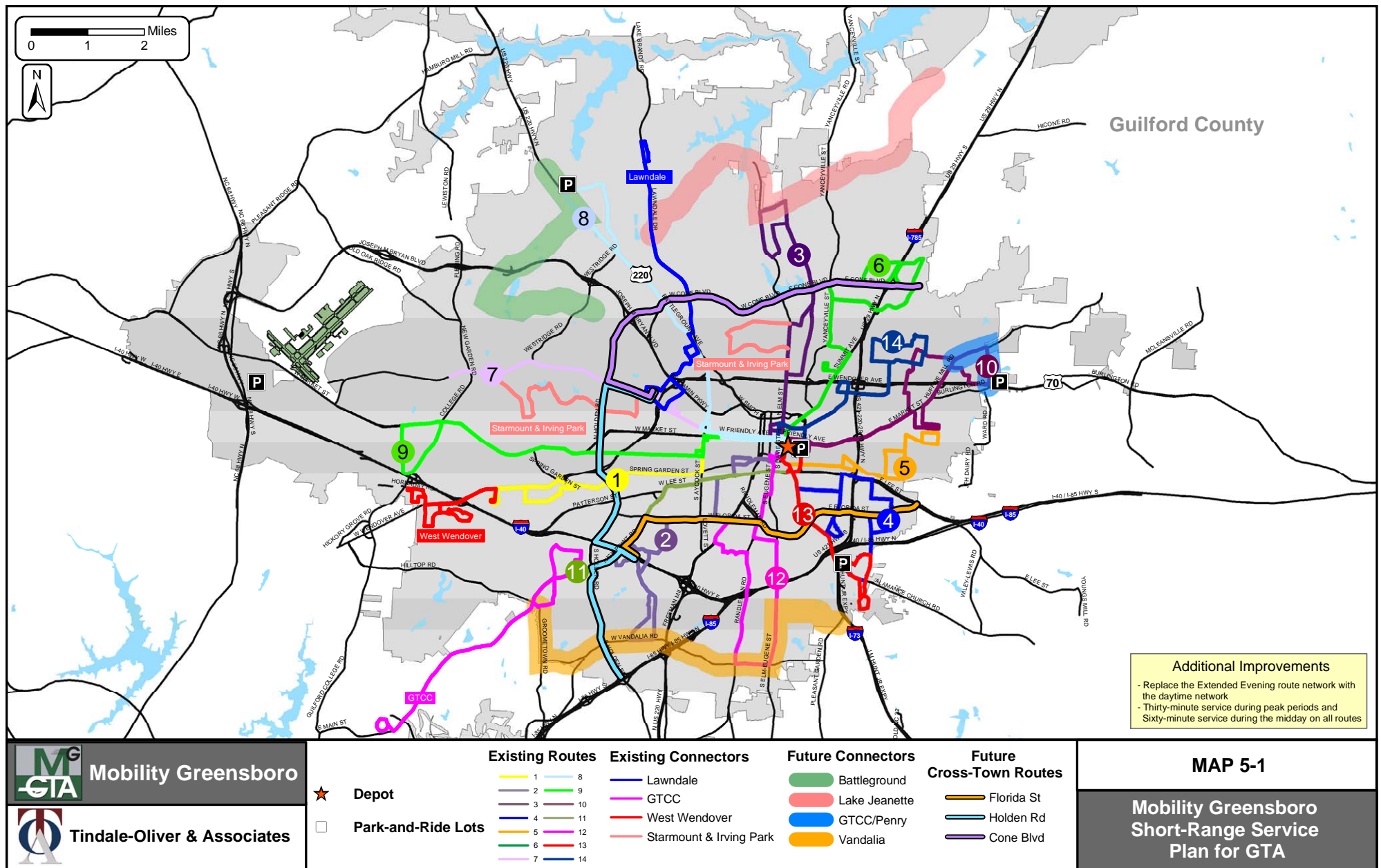
### *Proposed Investments*

The LRTP assumes current services remain in operation through 2020. By that time, a regional rail line between Hanes Mall (west of Winston-Salem) and NCA&T University in Greensboro would be open, according to current PART plans. **The LRTP assumes that the Hanes Mall to NCA&T regional rail line begins operation by 2017.** At that time, the Greensboro & Winston-Salem express bus services are assumed to be phased out, though the High Point bus connection would remain in service.

The LRTP finds that PART's plans appear reasonable, and can reasonably be expected to be funded in the timeframe noted in the plan. Actual implementation and timing will depend on 1) revenue availability; and 2) approval of plans by regulatory and funding agencies including the Federal Transit Administration. Discussions of revenue needs and availability will unfold in the next few years, as will PART's project development efforts.

More information on PART's services and plans can be found at [www.PARTNC.org](http://www.PARTNC.org).





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Date: 12/15/2003